A Review of Previous Transportation Planning Studies

University Area Transportation Study

Prepared for
City of Seattle Strategic Planning Office

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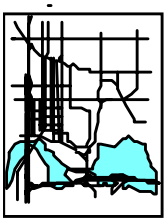

University Area Transportation Study

April 2001

Introduction

The University Area Transportation Study will identify transportation-related actions by which the City of Seattle, King County Metro and the Washington State Department of Transportation may support the vision adopted in the City's Comprehensive Plan and the University Community Urban Center Plan. The purpose of the study is to

> build on existing planning to provide a comprehensive, multimode transportation plan for the area, and serve as a blueprint for financing and programming improvements in the University area over the next decade.

The study will describe existing and future transportation problems, propose improvements to the transportation system, identify a process to help the city streamline the transportation impact analysis process for development reviews, and discuss potential funding sources.

This report summarizes key findings and recommendations from past studies of particular importance to the UATS. The studies and other documents that the consultant team has reviewed are listed in **Appendix A**. The transportation improvements identified in those documents are listed in a table shown in **Appendix B.**

University District Transportation Program (1985-1988)

This study was initiated by the Seattle Engineering Department and Metro in 1985. The existing conditions report prepared by TDA, a consultant for this study, for the period 1982-84 found traffic congestion to be the most apparent transportation problem in the study area. It identified NE 45th Street and Montlake Boulevard NE as the key corridors experiencing congestion, with NE Pacific Street also experiencing noteworthy congestion at times. It also lists other areas where traffic congestion is a problem.

TDA reports that the study area street system is faced with unique problems. Access is constrained by the limited capacity of bridges and underpasses that provide the primary access to the University District from all directions. The demands of through traffic, combined with locally generated traffic, place a heavy burden on the street system.

The existing conditions report did not provide specific travel speeds, but found that several streets in the area show average travel speeds of 2 to 5 miles per hour, indicating congestion, excessive delay, and generally poor traffic operations. Streets with very slow travel speeds include NE 7th Street, NE 45th Street, NE Pacific Street and Montlake Boulevard. In the study area, transit buses are directly affected by congestion, leading to unpredictable schedule performance and higher operating costs. Transit operating speeds on NE 45th Street from 15th Avenue NE to Roosevelt Way ranged from 2 to 5 miles per hour.

The Draft Environmental Impact Statement listing a set of preferred alternatives was issued in December 1987. It recommended implementation of a concept called "15th Avenue Northeast transit spine" that would shift all of the transit routes to 15th Avenue NE from University Way, and provide HOV and bus-only lanes on NE Pacific Street and Montlake Boulevard. The public responded very negatively to the DEIS regarding the 15th Avenue NE transit spine concept.

The city and Metro modified the proposed action by dropping the 15th Avenue transit spine concept by retaining several existing bus routes. The HOV/bus lane recommendations on NE Pacific Street and Montlake Boulevard were retained.

Montlake/Pacific Circulation Study (1992)

This study was prepared by DKS Associates in 1992 in response to the University of Washington's 2001 campus building expansion plan, which called for construction of over 2.7 million square feet of new additional floor area and removal of a 0.5 million square feet. It analyzed impacts of the expansion on three primary corridors:

- Brooklyn Avenue NE from NE 41st Street to NE Boat Street
- NE Pacific Street from NE Boat Street to Montlake Boulevard
- Montlake Boulevard from NE 45th Street to NE Pacific Street

The study analyzed levels of service with projected 2001 volumes and found that all intersections would operate adequately on those corridors except at Brooklyn Avenue and NE Pacific Street. It recommended intersection improvements on NE Pacific Street between 15th Avenue NE and Brooklyn Avenue NE.

The report stated that one of the most significant impacts to circulation in the Montlake Boulevard and Pacific Street corridors is congestion on SR 520 and the ramp meter on the eastbound on-ramp. Queuing from the ramp meter extends back up from the 1,500 foot-long ramp onto Montlake Boulevard, triggering surface street congestion. The volume of recurring queuing in the PM peak hour is driven by the lack of capacity to store traffic on the ramp meter approaches. More vehicles cannot be discharged onto SR 520, since it is regularly congested beyond the ramp meter terminal. Montlake Avenue cannot absorb the back-up due to the restricted Montlake Bridge capacity. Absent any alternative, freeway-destined traffic is therefore stored on surface streets. The DKS study recommends that WSDOT widen the SR 520 eastbound on-ramp to store vehicles.

The DKS study also reexamined the merit of a major capital project called the Montlake Boulevard Underpass, which would provide underground connections from Montlake Boulevard to NE Pacific Street at Columbia Rd. In 1981, an engineering firm was asked to evaluate this concept as a way to mitigate traffic from the expanding UW campus. DKS estimated that such underpass connections would cost $8 million to $9 million at that time. It concluded that, while such a facility would benefit pedestrians and bicyclists, benefits to vehicles are limited.

The report also describes the results of the HOV lane extension alternative analysis on NE Pacific Street and Montlake Boulevard. It concluded that:

- There is some merit in considering the extension of the NE Pacific Street HOV lane in a future study.
- No consideration should be given to the HOV lane extension on Montlake Boulevard.

University Community Urban Center Plan (1997-1998)

A draft University Community Urban Center Plan was prepared in August 1998 by the University Community Urban Center Association in conjunction with the Seattle Neighborhood Planning Office. It established the following vision statement related to the community and transportation:

- The University Community will be an inviting and welcoming, people-oriented urban community meeting the social, educational, residential, and commercial needs of a diverse array of people in an environmentally pleasing setting. The University Community will build on its current strengths and assets and proceed in a new direction to accomplish its vision of the future.

- The University Community will be a hub of efficient, environmentally sound multi-modal transportation serving the needs of residents, students, customers, and visitors.

The plan recommended to the city that transportation modes should be integrated into an efficient, balanced system. To achieve this recommendation, a set of implementation actions were listed as follows:

- Emphasize comfortable, safe, attractive pedestrian and bicycle access throughout the center.

- Facilitate increased bus service while minimizing negative impacts.

- Take advantage of Sound Transit connections and facilitate intermodal connections.

- Work with King County Metro to create efficient, minimal-impact bus circulation.

- Conduct an urban center-wide arterial corridor analysis to assess capacity, establish priorities, and determine funding for an integrated multimodal University Community Urban Center transportation plan.

- Explore local shuttle transportation options.

- Carefully manage parking to ensure adequate supply to support uses while working to limit dependence on parking and the impacts of large parking facilities.

This plan places a strong emphasis on improving pedestrian and bicycle access and lists a number of facility improvements (page IV-7). The city has indicated that some of those recommendations, including the bicycle/pedestrian underpass crossing at Montlake Boulevard, should be evaluated in the University Master Plan Study.

University of Washington Master Plan Transportation Analysis (2000)

DKS Associates prepared a transportation technical report in 2000 as a supplemental analysis report to the University of Washington Seattle Campus Master Plan 2002 – 2012. This study analyzed the transportation impacts of the UW's projected growth, shown below.

Projected University Population

Population	1999 FTE	1999 Headcount	2012 FTE	2012 Headcount	Increase FTE	Increase Headcount
Students	33,800	35,062	36-37,800	39,182	3-4,000	4,120
Faculty/Staff	20,800	20,463	26,000	25,463	5,000	5,000
Total	54,600	55,525	62-63,700	64,645	8-9,000	9,120

The report concludes that growth in the University population would result in additional vehicle trips to and from the campus, if additional actions to reduce travel demands, such as increasing parking costs or providing more financial incentives to use non-single occupant driving, were not implemented. The Seattle metropolitan area is also expected to increase in population, which will also add traffic on the street network in the study area.

The report lists specific facility improvements on and surrounding the UW campus for pedestrians, bicycles, transit, high occupancy vehicles, and parking. It is not clear at this time who is responsible for implementing the recommended improvements, and how they will be financed.